United States Environmental Protection Agency Region 7 901 N. 5th Street Kansas City, KS 66101

Date:

JUN - 8 2011

Subject: Transmittal of Sample Analysis Results for ASR #: 5379

Project ID: MDA7X300

Project Description: Former Lyons Diecasting Company - Removal Assessment sampling

MIDIL

From: Michael F. Davis, Chief C

Chemical Analysis and Response Branch, Environmental Services Division

To: Mike B. Davis

SUPR/ERSB/PPSS

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the OM.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the enclosed Customer Satisfaction Survey and Data Disposition/Sample Release memo for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Data Disposition/Sample Release memo.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

cc: Analytical Data File.

40351411 Superfund

Summary of Project Information

06/08/2011

Project Manager: Mike B. Davis Org: SUPR/ERSB/PP Phone: 913-551-7328

Project ID: MDA7X300

Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling

Location: Buckner **State:** Missouri **Program:** Superfund

Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE Site ID: A7X3 Site OU: 00

Purpose: Site Characterization GPRA PRC: 302DC6C

ORD Research ASR. PM has noted that samples will be used for treatability testing by

ORD.

ASR Number: 5379

Dave Riezman = ORD Activity Leader.

Explanation of Codes, Units and Qualifiers used on this report

Sample QC Codes: QC Codes identify the type of sample for quality control purpose. **Units:** Specific units in which results are reported.

__ = Field Sample mg/L = Milligrams per Liter

mg/kg = Milligrams per Kilogram ug/L = Micrograms per Liter

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank) = Values have been reviewed and found acceptable for use.

J = The identification of the analyte is acceptable; the reported value is an estimate

U = The analyte was not detected at or above the reporting limit.

UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.

Project ID: MDA7X300

Sample Information Summary

06/08/2011

Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling

| | QC Code | Matrix | Location Description | External Sample No | Start Date | Start Time | End Date | End Time | Receipt Date |
|-----|------------|--------|-----------------------|-----------------------|---------------|---------------|-------------|-------------|-----------------|
| 1 | _ | Waste | LNAPL HW sample | | 05/09/2011 | 12:30 | 05/09/2011 | 15:30 | 05/10/2011 |
| 2 | _ | Waste | Sludge HW sample | | 05/09/2011 | 12:30 | 05/09/2011 | 15:30 | 05/10/2011 |
| 3 | _ | Waste | Homogenized HW sample | | 05/09/2011 | 12:30 | 05/09/2011 | 15:30 | 05/10/2011 |
| 101 | | Water | Water sample | | 05/09/2011 | 12:30 | 05/09/2011 | 13:50 | 05/10/2011 |

RLAB Approved Analysis Comments

06/08/2011

Project ID: MDA7X300

Project Desc Former Lyons Diecasting Company - Removal Assessment

sampling

Analysis Comments About Results For This Analysis

1 Metals in Haz.Waste by ICP-AES

Lab: Region 7 ESAT Contract Lab (In-House) **Method:** EPA Region 7 RLAB Method 3122.3D

Samples: 1-__

Comments:

The samples were run at a dilution of 100X in an attempt to avoid damage done to the instrument.

2 Metals in Haz. Waste by ICP-AES

Lab: Region 7 ESAT Contract Lab (In-House) **Method:** EPA Region 7 RLAB Method 3122.3D

Samples: 2-__

Comments:

The samples were run at a dilution of 100X in an attempt to avoid damage done to the instrument.

3 Metals in Haz. Waste by ICP-AES

Lab: Region 7 ESAT Contract Lab (In-House)

Method: EPA Region 7 RLAB Method 3122.3D

Samples: 3-__

Comments:

The samples were run at a dilution of 100X in an attempt to avoid damage done to the instrument.

1 PCBs in Hazardous by GC/EC

Lab: Region 7 ESAT Contract Lab (In-House)

Method: EPA Region 7 RLAB Method 3240.2H with Acid Cleanup

Samples: 1-__

Comments:

2 PCBs in Hazardous by GC/EC

Lab: Region 7 ESAT Contract Lab (In-House)

Method: EPA Region 7 RLAB Method 3240.2H with Acid Cleanup

Samples: 2-__

Comments:

3 PCBs in Hazardous by GC/EC

RLAB Approved Analysis Comments

06/08/2011

Project ID: MDA7X300

Project Desc Former Lyons Diecasting Company - Removal Assessment

sampling

Analysis Comments About Results For This Analysis

Lab: Region 7 ESAT Contract Lab (In-House)

Method: EPA Region 7 RLAB Method 3240.2H with Acid Cleanup

Samples: 3-___
Comments:

1 Metals in Water by ICP-AES

Lab: Region 7 ESAT Contract Lab (In-House)

Method: EPA Region 7 RLAB Method 3122.3D

Samples: 101-__

Comments:

Potassium (85, 90-113) was J-coded in sample 101. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to low recovery of this analyte in the laboratory matrix spike. The actual concentration for this analyte may be higher than the reported value.

Chromium (7.7, 5.0) was UJ-coded in sample 101. This analyte was not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to poor precision obtained for this analyte in the laboratory matrix spike and matrix spike duplicate. The actual reporting limit for this analyte may be higher than the reported value.

Potassium (6.3, 5.0) was J-coded in sample 101. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to poor precision obtained for this analyte in the laboratory matrix spike and matrix spike duplicate.

Sodium (5.1, 5.0) was J-coded in sample 101. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to poor precision obtained for this analyte in the laboratory matrix spike and matrix spike duplicate.

Sodium (86, 87-112) was J-coded in sample 101. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to low recovery of this analyte in the laboratory matrix spike. The actual concentration for this analyte may be higher than the reported value.

1 Pesticides in Water by GC/EC

Lab: Region 7 ESAT Contract Lab (In-House) **Method:** EPA Region 7 RLAB Method 3240.2H

Samples: 101-___

Comments:

RLAB Approved Sample Analysis Results

06/08/2011

ASR Number: 5379

sampling

| | sampling | | | | | |
|-------------------------------------------|----------|----------------|--------|-------|-----|--|
| Analysis/ Analyte | Units | 1 | 2 | 3 | 101 | |
| 1 Metals in Haz. Waste by ICP-AES | | | • | | | |
| Arsenic | mg/kg | 794 U | | | · | |
| Baríum | mg/kg | 794 U | | | | |
| Cadmium | mg/kg | 397 U | | | | |
| Chromium | mg/kg | 397 U | | | | |
| Lead | mg/kg | 794 U | | _ | | |
| Selenium | mg/kg | 794 U | | | | |
| Silver | mg/kg | 794 U | | | | |
| 2 Metals in Haz.Waste by ICP-AES | | | | | | |
| Arsenic | mg/kg | | 1030 U | | | |
| Barium | mg/kg | | 1030 U | | | |
| Cadmium | mg/kg | | 515 U | | | |
| Chromium | mg/kg | | 515 U | | | |
| Lead | mg/kg | | 1030 U | | | |
| Selenium | mg/kg | | 1030 U | | | |
| Silver | mg/kg | | 1030 U | | | |
| 3 Metals in Haz.Waste by ICP-AES | | | | | | |
| Arsenic | mg/kg | | | 884 U | | |
| Barium | mg/kg | | | 884 U | | |
| Cadmium | mg/kg | | | 442 U | | |
| Chromium | mg/kg | | | 442 U | | |
| Lead | mg/kg | | • | 884 U | | |
| Selenium | mg/kg | | • | 884 U | | |
| Silver | mg/kg | | | 884 U | | |
| 1 PCBs in Hazardous by GC/EC | | | | | | |
| Aroclor 1016 | mg/kg | 310 U | | | | |
| Aroclor 1221 | mg/kg | 310 U | | | | |
| Aroclor 1232 | mg/kg | 310 U | | | | |
| Aroclor 1242 | mg/kg | 310 U | | | | |
| Aroclor 1254 | mg/kg | 1100 | | | | |
| Aroclor 1254 | mg/kg | 150 U 120 U | | | | |
| Aroclor 1260 | mg/kg | 120 0 | • | | | |
| 2 PCBs in Hazardous by GC/EC Aroclor 1016 | mg/kg | | 43 U | | | |
| Aroclor 1221 | mg/kg | | 43 U | | | |
| Aroclor 1221 | mg/kg | | 43 U | | | |
| Aroclor 1242 | mg/kg | | 43 U | | | |
| Aroclor 1248 | mg/kg | | 88 | | | |
| Aroclor 1254 | mg/kg | | 22 U | | | |
| Aroclor 1260 | mg/kg | | 17 U | | | |
| 3 PCBs in Hazardous by GC/EC | , , , , | | 2. 0 | | | |
| Aroclor 1016 | mg/kg | | | 120 U | | |
| Aroclor 1221 | mg/kg | | | 120 U | | |
| Aroclor 1232 | mg/kg | | | 120 U | | |
| Aroclor 1242 | mg/kg | | | 120 U | | |
| Aroclor 1248 | mg/kg | | | 270 | | |
| | <u> </u> | | | | | |

RLAB Approved Sample Analysis Results

06/08/2011

Project ID: MDA7X300

Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling

| | sampling | | | | |
|--------------------------------|----------|---|---|------|--------|
| Analysis/ Analyte | Units | 1 | 2 | 3 | 101 |
| Aroclor 1254 | mg/kg | | | 59 U | |
| Aroclor 1260 | mg/kg | | | 47 U | |
| 1 Metals in Water by ICP-AES | | | | | |
| Aluminum | ug/L | | | | 54.8 |
| Antimony | ug/L | | | | 14.6 |
| Arsenic | ug/L | | | | 25 U |
| Barium | ug/L | | | | 42.3 |
| Beryllium | ug/L | | | | 3 U |
| Cadmium | ug/L | | | | 3 U |
| Calcium | mg/L | | | | , 70.4 |
| Chromium | ug/L | | | | 15 UJ |
| Cobalt | ug/L | | | | 10 U |
| Copper | ug/L | | | | 5 U |
| Iron | ug/L | | | | 3280 |
| Lead | ug/L | | | | 50 U |
| Magnesium | mg/L | | | | 5.96 |
| Manganese | ug/L | | | | 255 |
| Molybdenum | ug/L | | | | 15 U |
| Nickel | ug/L | | | | 20 U |
| Potassium | mg/L | | | | 3.89 J |
| Selenium | ug/L | | • | | 50 U |
| Silver | ug/L | | | | 25 U |
| Sodium | mg/L | | | | 10.1 J |
| Thallium | ug/L | | | | 50 U |
| Titanium | ug/L | | | | 20 U |
| Vanadium | ug/L | | | | 10 U |
| Zinc | ug/L | | | | 153 |
| 1 Pesticides in Water by GC/EC | | | | | |
| Aroclor 1016 | ug/L | | | | 1.0 U |
| Aroclor 1221 | ug/L | | | | 1.0 U |
| Aroclor 1232 | ug/L | | | | 1.0 U |
| Aroclor 1242 | ug/L | | | | 0.80 U |
| Aroclor 1248 | ug/L | | | | 0.80 U |
| Aroclor 1254 | ug/L | | | | 0.60 U |
| Aroclor 1260 | ug/L | | | | 0.40 U |

CHAIN OF CUSTODY RECORD ENVIRONMENTAL PROTECTION AGENCY REGION VII

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ASR Number: 5379 Sample Number: 1 QC Code: __ Matrix: Waste Tag ID: 5379-1-__

Project ID: MDA7X300 Project Manager: Mike B. Davis

Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling

City: Buckner State: Missouri

Program: Superfund

Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE Site ID: A7X3 Site OU: 00

Location Desc: LNAPL HW sample

External Sample Number: LNAPL HW sample

Expected Conc: (or Circle One: Low Medium (High) Date Time(24 hr)

Latitude: 39,13914 Sample Collection: Start: 5/9/11 [2:30]

Longitude: $\frac{-94.1597}{15.30}$ End: $\frac{5}{9}$ /1 | $\frac{5}{30}$

Laboratory Analyses:

Container Preservative Holding Time Analysis

1 - 8 oz glass
4 Deg C
180 Days
1 Metals in Haz.Waste by ICP-AES
1 - 8 oz glass
4 Deg C
14 Days
1 PCBs in Hazardous by GC/EC

Sample Comments:

(N/A)

Sample Collected By: MBD

ASR Number: 5379 Sample Number: 2 QC Code: ___ Matrix: Waste Tag ID: 5379-2-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis

Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling

City: Buckner State: Missouri

Program: Superfund

Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE Site ID: A7X3 Site OU: 00

Location Desc: Sludge HW sample

External Sample Number: Studge HW Gample

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: 39, 13911 Sample Collection: Start: 5/9/11 12:30

Longitude: -94.15.972 End: 5.9.11 5.3.0

Laboratory Analyses:

ContainerPreservativeHolding TimeAnalysis1 - 8 oz glass4 Deg C180 Days2 Metals in Haz. Waste by ICP-AES

1 - 8 oz glass 4 Deg C 14 Days 2 PCBs in Hazardous by GC/EC

Sample Comments:

(N/A)

Sample Collected By: MBD

ASR Number: 5379 Sample Number: 3 QC Code: __ Matrix: Waste Tag ID: 5379-3-__

Project ID: MDA7X300 Project Manager: Mike B. Davis

Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling

City: Buckner

Program: Superfund

Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE Site ID: A7X3 Site OU: 00

Location Desc: Homogenized HW sample

External Sample Number: Homoge nized HW sample

State: Missouri

Expected Conc: (or Circle One: Low Medium (High) Date Time(24 hr)

Latitude: 39,139/4 Sample Collection: Start: 5/9/1 12:30

Longitude: $\frac{94,15872}{15:30}$ End: $\frac{59/11}{15:30}$

Laboratory Analyses:

ContainerPreservativeHolding TimeAnalysis1 - 8 oz glass4 Deg C180 Days3 Metals in Haz. Waste by ICP-AES

1 - 8 oz glass 4 Deg C 14 Days 3 PCBs in Hazardous by GC/EC

Sample Comments:

(N/A)

Sample Collected By: MBD

ASR Number: 5379 Sample Number: 101 QC Code: ___ Matrix: Water Tag ID: 5379-101-Project ID: MDA7X300 Project Manager: Mike B. Davis Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling City: Buckner State: Missouri Program: Superfund **Site Name:** FORMER LYONS DIECASTING COMPANY - SITEWIDE Site ID: A7X3 Site OU: 00 Location Desc: Water sample **External Sample Number: Expected Conc:** (or Circle One: (Low Medium)High) Time(24 hr) Latitude: 39,13914 Sample Collection: Start: Longitude: -94.15872 End: **Laboratory Analyses:** Container Preservative **Holding Time Analysis**

180

Days

Days

1 Metals in Water by ICP-AES

1 Pesticides in Water by GC/EC

Sample Comments:

1 Liter Cubitainer

1 - 128oz amber glass

HNO3 acidify, 4 Deg C

4 Deg C

Sample Collected By: MDB